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AMENDMENTS

In the claims:

Please add new claim 14 as follows:

14. A method of isolating a substantially pure population of ovarian mesothelial cells which have a pluripotent capacity to differentiate into ovary surface epithelial cells or granulosa cells, comprising the steps of:
- (a) microdissecting a source of human fetal ovarian mesothelial cells;
  - (b) placing the source of ovarian mesothelial cells in nutrient media under culture conditions sufficient to sustain life of said ovarian mesothelial cells and wherein the nutrient media contains nutrients consisting of insulin, transferrin, epidermal growth factor,  $\alpha$ -tocopherol, recombinant human heregulin  $\beta$ 1, bovine serum albumin, and aprotinin;
  - (c) maintaining suitable culture conditions sufficient to allow the migration of ovarian mesothelial cells from the source of ovarian mesothelial cells into the nutrient media;
  - (d) maintaining suitable culture conditions sufficient to allow ovarian mesothelial cells to form aggregate or monolayer formations; and
  - (e) subculturing said aggregate or monolayer formations to obtain an isolated, substantially pure population of ovarian mesothelial cells which have a pluripotent capacity to differentiate into ovary surface epithelial cells or granulosa cells.